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JUN 23 2010

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Re: Oil and Gas Leasing on Lands
Administered by the Dixie National Forest
Draft EIS, CEQ # 20080411

The United States Environmental Protection Agency, Region 8 (EPA), has reviewed the Dixie National Forest's (DNF) Draft Environmental Impact Statement (Draft EIS) dated October 2008 prepared by the U.S. Department of Agriculture Forest Service (USFS). Our comments are provided for your consideration pursuant to our responsibilities and authority under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609. It is EPA's responsibility to provide an independent review and evaluation of the potential environmental impacts of this project, which includes a rating of the environmental impact of the proposed action and the adequacy of the NEPA document. Under the bifurcated evaluation process for this project, EPA already provided the Forest Service with all the comments on the Draft EIS except for those on air quality impacts. EPA had also withheld its rating on the Draft EIS until we could evaluate the supplemental air quality information contained in the Draft Supplemental Information Report (SIR). EPA provided formal comments on the supplemental air quality analysis with our letter of April 20, 2010 and is now providing a rating for the Draft EIS. EPA identified the following issues in its letter of February 3, 2009: 1) impacts to water quality from oil and gas development; 2) impacts to impaired water bodies; 3) impacts to sole-source or designated drinking water source protection aquifers; and 4) impacts of the preferred alternative on special area designations and the nearby, unique landscapes managed by the National Park Service (NPS).

The Draft EIS evaluates many different land management options, including oil and gas and locatable mineral development, range management, wilderness area and wild and scenic river designation protections, and wildlife management. Authorizing a lease grants the lessee the right to conduct oil and gas activities that may have environmental impacts. The environmental consequences of oil and gas activities, therefore, appear to have been analyzed in this Draft EIS in a reasonably conservative way. The overall analysis appears to be technically sound, based on reasonable estimates of future development using BLM leasing data and historical development patterns. The analysis provides a reasonably complete disclosure of impacts from the likely connected actions that would follow leasing.

The Draft EIS identifies Dixie National Forest lands that could be made available for oil and gas leasing, in accordance with the Mineral Leasing Act, under an appropriate range of leasing alternatives. The analysis presents air impact results for three phases of the project: exploration, development, and sustained production. For the exploratory phase, it is anticipated that 60 wells would be drilled over a 15-year period and for the production phase, 20 wells would be converted from exploration and completed as pumping wells. While the development details for this concept of connected actions from leasing are highly speculative, the USFS has indicated that additional project-specific environmental analysis will be performed prior to the approval of any actual oil and gas exploration and development activities. Five alternatives were developed and were assigned a letter (A – E). Alternative A is the no action/no lease alternative and would not authorize new oil and gas leasing on the Dixie National Forest. Action alternatives B – E allow some amount of new oil and gas leasing. The differences between Alternatives B – E can be distinguished by the level of restrictions under which leasing could occur. In general, Alternative B applies the most restrictive leasing options and Alternate E the least restrictive. Alternative C, the preferred alternative, relies upon the assignment of surface use constraints or stipulations on certain areas of the forest districts that would either prohibit leasing or discourage surface occupation for drilling on sites that are close to the Bryce Canyon and Zion National Park boundaries.

EPA was confused about the air quality analysis during the initial review of the Draft EIS. A stakeholder meeting was called to discuss the modeling methodology and the use of certain emission factors for the emission inventory. During this meeting, EPA and the other stakeholders agreed that no quantitative photochemical modeling would be conducted to predict ozone for this project because the reasonably foreseeable development potential was low. Subsequently, ozone measurements at some locations in northeastern Utah and northwestern Colorado have exceeded the national ambient air quality standards (NAAQS) for ozone near areas of oil and gas development. This monitored area, i.e. the Uintah Basin and Colorado Plateau, is outside the cumulative effects area analyzed for this Draft EIS. EPA, therefore, does not believe that the recent high ozone measurements change what was previously determined to be reasonable analysis for this Draft EIS.

The Draft SIR provides information from modeling the life-cycle air emissions from potential oil and gas facilities that may result from the proposed action. Air emissions from exploratory drilling activities are analyzed for hypothetical lease areas within the Dixie National Forest. The Draft SIR assumed that if exploration is successful, potential NO_x, SO_2, and VOCs emissions from the production facilities, and PM_{10} emissions from lease operating and maintenance activities would occur. These air emissions were modeled for a hypothetical oilfield development consisting of 20 wells spread over 110 acres. The Draft SIR provides information from modeling sustained production from these 20 producing wells to analyze direct and indirect impacts to Class I and Class II areas.

Screening-level air quality impact analyses were conducted for the Draft EIS using the CALPUFF model. The Clean Air Act (CAA) requires special protection of air quality and air quality-related values, such as visibility and acid neutralizing capability, in federal Class I areas. Specifically, the CAA establishes a national goal of preventing future impairment and remedying

an existing impairment of visibility due to man-made air pollution in mandatory Class I federal areas. In addition to visibility provisions, the CAA contains general provisions for a Prevention of Significant Deterioration (PSD) program that makes federal land managers responsible for protecting Class I areas from air quality degradation. Several Class I areas and several Sensitive Class II areas, which enjoy special protections, including air-quality related values (AQRVs), are near the Dixie National Forest. During the initial exploratory phase of the leases, modeled emissions from exploration activities would comply with the applicable air quality standards for Class II areas. However, the modeling suggests potential NO_2 and PM_{10} PSD increment compliance issues in Class I areas that are closer than 10 km from the exploration well drilling. For the sustained production phase of the leases, some degree of impacts were predicted for SO_2, NO_2, and PM_{10} from any production well pads located closer than 20 km from the Class I areas. EPA believes the results presented in the Draft SIR's screening-level analysis indicate that oil and gas development of successful exploration wells should be mitigated to meet the intent of the CAA to prevent future visibility impairment, and prevent significant deterioration of specially protected, mandatory Class I areas. The USFS should condition their leases such that they contain adequate mitigation of potential visibility impacts and provide support to Utah's implementation plans for compliance with the CAA requirements.

Preferred Alternative C would allocate certain forest lands in close proximity to national park lands to leasing when the Draft SIR indicates there could be potential problems with NO_2 compliance over these Class I areas. The modeling results reported in the Draft SIR also suggested there could be potential SO_2 compliance problems over Class I areas out to distances of approximately 10 km (6.2 miles) and approximately 5 km (3.1 miles) for PM_{10} compliance. Alternative C would rely upon the decision of the Forest Supervisor to apply stipulations of No Lease or Constrained Surface Use on any leases offered for sale to discourage oilfield development on areas of the Dixie National Forest that are within such distances to the national park boundaries.

The information presented in the Draft EIS, as revised with the Draft SIR analysis, is an adequate discussion of air quality impacts from potential oil and gas development. The results of these analyses, which EPA understands are based on reasonable assumptions about typical emissions, disclose the potential for impacts to air quality and visibility from SO_2, NO_x, and PM_{10} emissions from connected actions located close to Class I areas. The Draft SIR discloses that regional ozone is trending upward in northeastern Utah and refers to modeling results from the Uintah Basin Air Quality Study (UBAQS June 30, 2009). UBAQS is one of the only regional cumulative air impact analyses currently available whose modeling domain includes the areas allocated for leasing. EPA has previously commented to the UBAQS stakeholders that there are important shortcomings in the UBAQS modeling protocols that will need to be improved. Some of our concerns include:

- There is not sufficient air monitoring data in the UBAQS modeling study, because at the time the study was performed, this data was not available for the area. For photochemical grid modeling efforts, monitoring data is used to improve model predictions within the modeling domain.
- The UBAQS primary modeling domain was subdivided into 12-km grid squares, instead of

the preferred 4-km grids, for a large portion of central and eastern Utah and western Colorado. The accuracy of modeled predictions from a 12-km or greater grid spacing for areas of complex terrain has tended to be suspect.

- The UBAQS oil and gas focus area, and associated emission inventory within that area, comprised the six-counties of the Uintah Basin. The Dixie National Forest occurs outside this focus area, but was covered within the overall UBAQS statewide modeling domain. The modeling domain was subdivided into12-km grid squares to provide additional detail on the location of existing oil and gas emission sources. It is not clear to us how hypothetical emissions from the Dixie National Forest oil and gas leasing scenarios were reflected in the UBAQS study.
- The UBAQS future modeled predictions for year 2012 are not particularly useful for project development activities occurring beyond the year 2012.

The Dixie National Forest should ensure that emission inventory information from activities with ozone precursor emissions be used in quantitative ozone analysis of future plans of development on the Forest. For plans of development that meet or exceed the 20-well development scenario, appropriate air modeling analysis for all pollutants, including ozone, should be conducted for the project emissions and the results made available to the public in an appropriate NEPA document.

The Draft EIS identifies in Appendix C a wide range of control measures to limit emissions. EPA thinks there are opportunities to apply some of these control measures as mitigation in the Final EIS. We recommend that the expected emission reductions from such mitigation should be included in any future cumulative impact air quality analysis to estimate more realistic impact contributions from oil and gas production. EPA also suggests that a cumulative analysis, incorporating the mitigation commitments, should be a requirement under any plan of development implemented as a connected action from this leasing decision. EPA strongly recommends the reduction of ozone precursor emissions (NOx and volatile organic compounds) through mandating use of Tier II drill rig engines, 'green' well completions, VOC capture technologies, EPA GasSTAR program implementation, and other air resource management strategies under development by the BLM Utah State Office.

There are several good industry practices and effective control measures mentioned in Appendix C that should become commitments under the Record of Decision. These include:

- Quantitative analysis of potential air quality impacts will be conducted for project-specific developments by the operator. The operator will be required to comply with the State Implementation Plan or applicable federal regulations. The Forest Service plans to require the best air quality control technology for development projects as needed to meet air quality standards.
- The operator will comply with the most recent requirement that prohibits the use, maintenance, or construction of roadways without making appropriate dust abatement measures. Compliance will be obtained through special stipulations as a requirement on new projects and through the use of dust abatement control techniques in problem areas.
- The operator will manage authorized activities to maintain air quality within the thresholds

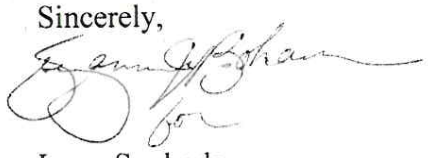
established by the State of Utah Ambient Air Quality Standards and to ensure that those activities continue to keep the area in attainment, meet prevention of significant deterioration (PSD) Class II standards, and protect the Class I air shed of the National Parks (e.g. Zion, Bryce Canyon, and Capitol Reef National Parks).

- National Ambient Air Quality Standards will be enforced on the operator by the UDEQ, with EPA oversight. Special requirements to reduce potential air quality impacts will be considered on a case-by-case basis in processing land-use authorizations.
- The operator will utilize BMPs and site specific mitigation measures, when appropriate, based on-site specific conditions, to reduce emissions and enhance air quality. Examples of these types of measures can be found in the Four Corners Air Quality Task Force Report of Mitigation Options, November 1, 2007, and include such best industry practices as green well completions, instrument air or low bleed pneumatic control systems, and centralized tank batteries.
- The operator will comply with a Condition of Approval for Applications for Permit to Drill that requires: (1) All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower. (2) All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour.

Our letter on the Draft EIS dated February 3, 2009 discussed additional concerns and requested additional information needed to fully meet the needs of NEPA. In accordance with our policies and procedures for reviews under NEPA and Section 309 of the CAA, EPA has rated the Draft EIS as Environmental Concerns--Adequate Information (EC-1) due to the identification of environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impacts. The adequacy rating of the information presented in the Draft EIS has been improved with the additional discussion and explanation provided in the Draft SIR. Together, the Draft EIS and the Draft SIR adequately set forth the environmental impacts of the preferred alternative.

Thank you for the opportunity to comment on this Draft EIS. We hope that our comments will be of value to the Forest Service in preparing the Final EIS. If you have any questions on the comments provided in this letter, please contact me at 303-312-6004, or you may contact Jim Hanley at 303-312-6725.

Sincerely,



Larry Svoboda
Director, NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation

Enclosures:

EPA's Rating System Criteria

cc: Todd Christensen, District Manager, Color Country District Office, Utah BLM
Harv Forsgren, Regional Forester, U.S. Forest Service, Intermountain Region 4
Dave Prey, UDAQ